



FIG. 1A

| | | |
|----|-------|--------|
| 42 | -0.33 | ===D |
| 43 | -0.83 | =====L |
| 44 | -0.83 | =====I |
| 45 | -0.83 | =====L |
| 46 | -0.48 | =====N |
| 47 | -0.47 | =====N |
| 48 | 0.00 | G |
| 49 | -0.38 | =====L |
| 50 | -0.33 | =====L |
| 51 | 0.47 | S===== |
| 52 | 0.12 | S= |
| 53 | -0.02 | D |
| 54 | -0.90 | =====Y |
| 55 | -0.02 | V |
| 56 | 0.27 | E=== |
| 57 | -0.23 | =I |
| 58 | 0.57 | H===== |
| 59 | 0.65 | Y===== |
| 60 | 1.07 | E===== |
| 61 | 0.58 | N===== |
| 62 | 0.60 | G===== |
| 63 | 1.10 | K===== |
| 64 | 0.60 | P===== |
| 65 | 0.60 | Q===== |
| 66 | 1.07 | y===== |
| 67 | 0.97 | S===== |
| 68 | 0.75 | K===== |
| 69 | -0.13 | =G |
| 70 | -0.52 | =====G |
| 71 | -0.60 | =====E |
| 72 | -1.10 | =====H |
| 73 | -0.97 | =====C |
| 74 | -1.10 | =====Y |
| 75 | -0.22 | ==Y |
| 76 | 0.17 | H== |
| 77 | 0.00 | G |
| 78 | 0.50 | S===== |
| 79 | 0.95 | I===== |
| 80 | 1.30 | R===== |
| 81 | 1.30 | G===== |
| 82 | 1.05 | V===== |
| 83 | 1.22 | K===== |
| 84 | 0.42 | D===== |
| 85 | -0.65 | =====S |

FIG. 1B

| | | |
|-----|-------|--------|
| 86 | -0.77 | =====K |
| 87 | -1.43 | =====V |
| 88 | -1.15 | =====A |
| 89 | -1.07 | =====L |
| 90 | -1.07 | =====S |
| 91 | -0.58 | =====T |
| 92 | -0.52 | =====C |
| 93 | -0.57 | =====N |
| 94 | -1.02 | =====G |
| 95 | -0.52 | =====L |
| 96 | 0.28 | H===== |
| 97 | 0.87 | G===== |
| 98 | 0.80 | M===== |
| 99 | 0.60 | F===== |
| 100 | 0.77 | E===== |
| 101 | -0.12 | =D |
| 102 | -0.83 | =====D |
| 103 | -1.63 | =====T |
| 104 | -1.07 | =====F |
| 105 | -0.65 | =====V |
| 106 | -0.70 | =====Y |
| 107 | 0.18 | M== |
| 108 | 0.10 | I= |
| 109 | 0.15 | E= |
| 110 | -0.43 | ====P |
| 111 | 0.07 | L= |
| 112 | 0.87 | E===== |
| 113 | 0.87 | L===== |
| 114 | 1.22 | V===== |
| 115 | 1.40 | H===== |
| 116 | 1.48 | D===== |
| 117 | 1.48 | E===== |
| 118 | 0.98 | K===== |
| 119 | 0.40 | S===== |
| 120 | 0.05 | T |
| 121 | -0.18 | =G |
| 122 | -0.15 | =R |
| 123 | -0.15 | =P |
| 124 | -0.22 | =H |
| 125 | -0.43 | ====I |
| 126 | -0.22 | =I |
| 127 | 0.08 | Q= |
| 128 | 0.08 | K= |
| 129 | -0.40 | ====T |

FIG. 1C

| | | |
|-----|-------|--------|
| 130 | -0.28 | ==L |
| 131 | 0.52 | A===== |
| 132 | 0.63 | G===== |
| 133 | 0.42 | Q===== |
| 134 | 0.88 | y===== |
| 135 | 0.90 | S===== |
| 136 | 0.55 | K===== |
| 137 | -0.02 | Q |
| 138 | -0.27 | ==M |
| 139 | 0.45 | K===== |
| 140 | 0.45 | N===== |
| 141 | 0.42 | L===== |
| 142 | 1.22 | T===== |
| 143 | 1.32 | M===== |
| 144 | 1.37 | E===== |
| 145 | 0.87 | R===== |
| 146 | -0.05 | =G |
| 147 | -0.35 | ==D |
| 148 | -0.80 | =====Q |
| 149 | -0.33 | ==W |
| 150 | -0.47 | ====P |
| 151 | -0.43 | ====F |
| 152 | -0.58 | =====L |
| 153 | -0.58 | =====S |
| 154 | -0.13 | =E |
| 155 | -0.13 | =L |
| 156 | 0.67 | Q===== |
| 157 | 1.13 | W===== |
| 158 | 2.20 | L===== |
| 159 | 2.42 | K===== |
| 160 | 1.67 | R===== |
| 161 | 1.20 | R===== |
| 162 | 0.70 | K===== |
| 163 | 0.25 | R===== |
| 164 | 0.25 | A===== |
| 165 | 0.33 | V===== |
| 166 | 0.28 | N===== |
| 167 | -0.17 | ==P |
| 168 | 0.33 | S===== |
| 169 | 0.78 | R===== |
| 170 | 0.07 | G===== |
| 171 | 0.57 | I===== |
| 172 | 0.48 | F===== |
| 173 | 0.60 | E===== |

FIG. 1D

| | | |
|-----|-------|--------|
| 174 | 0.60 | E===== |
| 175 | -0.20 | ==M |
| 176 | -0.20 | ==K |
| 177 | -1.00 | =====Y |
| 178 | -0.62 | =====L |
| 179 | -0.28 | ===E |
| 180 | -0.28 | ==L |
| 181 | 0.33 | M=== |
| 182 | 1.05 | I===== |
| 183 | 1.28 | G===== |
| 184 | 1.30 | N===== |
| 185 | 1.77 | D===== |
| 186 | 1.77 | h===== |
| 187 | 1.77 | K===== |
| 188 | 1.77 | T===== |
| 189 | 1.88 | y===== |
| 190 | 1.92 | K===== |
| 191 | 1.33 | K===== |
| 192 | 0.75 | h===== |
| 193 | 0.35 | R===== |
| 194 | -0.22 | ==S |
| 195 | -0.23 | ==S |
| 196 | -0.25 | ==H |
| 197 | -0.58 | =====A |
| 198 | -0.58 | =====H |
| 199 | 0.00 | T |
| 200 | 0.12 | N= |
| 201 | -0.17 | ==N |
| 202 | -0.45 | =====F |
| 203 | 0.00 | A |
| 204 | -0.22 | ==K |
| 205 | -0.97 | =====S |
| 206 | -0.52 | =====V |
| 207 | -0.22 | ==V |
| 208 | -0.27 | ===N |
| 209 | -0.68 | =====L |
| 210 | 0.12 | V= |
| 211 | 0.87 | D===== |
| 212 | 0.40 | S===== |
| 213 | 0.05 | I= |
| 214 | 0.38 | Y===== |
| 215 | 0.70 | K===== |
| 216 | 0.70 | E===== |
| 217 | -0.05 | Q |

FIG. 1E

| | | |
|-----|-------|--------|
| 218 | -0.33 | ===L |
| 219 | -0.33 | ===N |
| 220 | -0.62 | =====T |
| 221 | -0.63 | =====R |
| 222 | -1.38 | =====V |
| 223 | -0.63 | =====V |
| 224 | -0.45 | =====L |
| 225 | -0.32 | ===V |
| 226 | -0.13 | =A |
| 227 | 0.45 | V===== |
| 228 | 1.20 | E===== |
| 229 | 1.20 | T===== |
| 230 | 1.30 | W===== |
| 231 | 1.17 | T===== |
| 232 | 1.73 | E===== |
| 233 | 0.93 | K===== |
| 234 | 0.37 | D===== |
| 235 | -0.20 | ==Q |
| 236 | -0.20 | ==I |
| 237 | 0.10 | D= |
| 238 | -0.65 | =====I |
| 239 | -0.32 | ===T |
| 240 | -0.47 | =====T |
| 241 | -0.70 | =====N |
| 242 | -0.82 | =====P |
| 243 | -0.32 | ===V |
| 244 | -0.48 | =====Q |
| 245 | -0.47 | =====M |
| 246 | 0.25 | L===== |
| 247 | 0.57 | H===== |
| 248 | 1.15 | E===== |
| 249 | 0.68 | F===== |
| 250 | 1.60 | S===== |
| 251 | 1.25 | K===== |
| 252 | 1.25 | y===== |
| 253 | 1.27 | R===== |
| 254 | 0.68 | Q===== |
| 255 | 0.57 | R===== |
| 256 | 0.57 | I===== |
| 257 | 0.78 | K===== |
| 258 | 0.03 | Q |
| 259 | -0.08 | =H |
| 260 | -0.30 | ===A |
| 261 | -0.52 | =====D |

FIG. 1F

| | | |
|-----|-------|--------|
| 262 | -0.97 | =====A |
| 263 | -0.38 | ====V |
| 264 | -0.38 | ====H |
| 265 | -0.37 | ====L |
| 266 | -0.48 | =====I |
| 267 | -0.27 | ====S |
| 268 | -0.70 | =====R |
| 269 | -0.70 | =====V |
| 270 | 0.05 | T= |
| 271 | 0.17 | F== |
| 272 | 0.63 | H===== |
| 273 | 0.42 | Y===== |
| 274 | 0.85 | K===== |
| 275 | -0.03 | R |
| 276 | -0.95 | =====S |
| 277 | -0.50 | ====S |
| 278 | -0.55 | ====L |
| 279 | -0.50 | ====S |
| 280 | -0.72 | =====Y |
| 281 | -0.28 | ====F |
| 282 | 0.63 | E===== |
| 283 | 0.07 | G= |
| 284 | 0.57 | V===== |
| 285 | 0.82 | C===== |
| 286 | 0.73 | S===== |
| 287 | 0.68 | R===== |
| 288 | -0.07 | =T |
| 289 | 0.03 | R |
| 290 | 0.03 | G |
| 291 | 0.05 | V= |
| 292 | 0.30 | G==== |
| 293 | 0.00 | V |
| 294 | 0.25 | N==== |
| 295 | 0.00 | E |
| 296 | -0.58 | ====y |
| 297 | -0.85 | =====G |
| 298 | -0.93 | =====L |
| 299 | -0.60 | ====P |
| 300 | -0.85 | =====M |
| 301 | -0.93 | =====A |
| 302 | -0.80 | =====V |
| 303 | -0.52 | ====A |
| 304 | -0.38 | ====Q |
| 305 | -0.72 | =====V |

FIG. 1G

| | | |
|-----|-------|--------|
| 306 | -0.55 | =====L |
| 307 | -0.22 | ==S |
| 308 | -0.23 | ==Q |
| 309 | -0.57 | =====S |
| 310 | -0.62 | =====L |
| 311 | -0.62 | =====A |
| 312 | -0.50 | =====Q |
| 313 | -1.10 | =====N |
| 314 | -0.63 | =====L |
| 315 | -0.33 | ==G |
| 316 | -0.28 | ==I |
| 317 | 0.07 | Q= |
| 318 | 0.53 | W===== |
| 319 | 1.60 | E===== |
| 320 | 1.10 | P===== |
| 321 | 1.60 | S===== |
| 322 | 1.38 | S===== |
| 323 | 1.83 | R===== |
| 324 | 1.17 | K===== |
| 325 | 0.60 | P===== |
| 326 | 1.10 | K===== |
| 327 | 0.65 | C===== |
| 328 | 0.65 | D===== |
| 329 | 0.15 | C= |
| 330 | 0.32 | T== |
| 331 | 0.22 | E= |
| 332 | -0.58 | =====S |
| 333 | -0.85 | =====W |
| 334 | -0.18 | ==G |
| 335 | 0.32 | G== |
| 336 | 0.25 | C== |
| 337 | 0.42 | I===== |
| 338 | 0.47 | M===== |
| 339 | 0.73 | E===== |
| 340 | 0.15 | E= |
| 341 | -0.30 | ==T |
| 342 | 0.27 | G== |
| 343 | 0.77 | V===== |
| 344 | 0.60 | S===== |
| 345 | 0.60 | H===== |
| 346 | 1.18 | S===== |
| 347 | 0.97 | R===== |
| 348 | 0.52 | K===== |
| 349 | -0.28 | ==F |

FIG. 1H

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| | | |
|-----|-------|--------|
| 350 | -0.17 | ==S |
| 351 | 0.28 | K== |
| 352 | -0.60 | =====C |
| 353 | 0.07 | S= |
| 354 | 0.52 | I===== |
| 355 | 0.40 | L===== |
| 356 | 0.40 | E===== |
| 357 | -0.07 | =Y |
| 358 | 0.82 | R===== |
| 359 | 0.32 | D== |
| 360 | -0.18 | ==F |
| 361 | -0.33 | ==L |
| 362 | -0.12 | =Q |
| 363 | -0.32 | ==R |
| 364 | -1.12 | =====G |
| 365 | -1.53 | =====G |
| 366 | -1.50 | =====g |
| 367 | -0.43 | ====A |
| 368 | -0.35 | ====C |
| 369 | -0.25 | ==L |
| 370 | 0.55 | F===== |
| 371 | 0.67 | N===== |
| 372 | 0.22 | R== |
| 373 | 0.22 | P== |
| 374 | 0.22 | T== |
| 375 | 0.22 | K== |
| 376 | 0.22 | L== |
| 377 | 0.35 | F==== |
| 378 | 0.77 | E===== |
| 379 | 0.30 | P== |
| 380 | 0.30 | T== |
| 381 | -0.02 | E |
| 382 | -0.77 | =====C |
| 383 | -0.10 | =G |
| 384 | -0.18 | ==N |
| 385 | -0.22 | ==G |
| 386 | 0.28 | Y== |
| 387 | 1.17 | V===== |
| 388 | 1.25 | E===== |
| 389 | 1.25 | A===== |
| 390 | 1.17 | G===== |
| 391 | 1.17 | E===== |
| 392 | 0.25 | E== |
| 393 | -0.33 | ==C |

FIG. 11

| | | |
|-----|-------|--------|
| 394 | -0.42 | ====D |
| 395 | -0.42 | ====C |
| 396 | -0.42 | ====G |
| 397 | -0.80 | =====F |
| 398 | -0.38 | ====H |
| 399 | -0.60 | =====V |
| 400 | -0.52 | ====E |
| 401 | -1.18 | =====C |
| 402 | -0.52 | ====Y |
| 403 | 0.37 | G===== |
| 404 | 0.20 | L== |
| 405 | 0.55 | C===== |
| 406 | 0.42 | C===== |
| 407 | 0.63 | K===== |
| 408 | 0.17 | K== |
| 409 | -0.33 | ===C |
| 410 | -0.25 | ===S |
| 411 | -0.38 | ====L |
| 412 | -0.25 | ===S |
| 413 | -0.25 | ===N |
| 414 | 0.22 | G== |
| 415 | 0.22 | A== |
| 416 | 0.30 | H=== |
| 417 | 0.22 | C== |
| 418 | 0.22 | S== |
| 419 | 0.20 | D== |
| 420 | -0.27 | ===G |
| 421 | -0.33 | ===P |
| 422 | -0.28 | ===C |
| 423 | -0.28 | ===C |
| 424 | -0.42 | ====N |
| 425 | -0.87 | =====N |
| 426 | -0.87 | =====T |
| 427 | -0.80 | =====S |
| 428 | -0.35 | ====C |
| 429 | -0.18 | ==L |
| 430 | 0.13 | F= |
| 431 | 1.05 | Q===== |
| 432 | 0.85 | P===== |
| 433 | 1.35 | R===== |
| 434 | 1.35 | G===== |
| 435 | 1.27 | y===== |
| 436 | 1.00 | E===== |
| 437 | 0.53 | C===== |

FIG. 1J

438 1.20
 439 0.53
 440 0.53
 441 0.32
 442 0.50
 443 0.97
 444 0.08
 445 0.08
 446 -0.48
 447 -0.18
 448 0.38
 449 -0.07
 450 0.32
 451 0.52
 452 0.42
 453 0.42
 454 -0.08
 455 -0.10
 456 -0.40
 457 -0.52
 458 0.15
 459 0.18
 460 0.68
 461 0.65
 462 0.57
 463 0.57
 464 -0.10
 465 -0.10
 466 -0.57
 467 -0.53
 468 -0.12
 469 -0.03
 470 0.63
 471 0.43
 472 0.02
 473 0.02
 474 -0.02
 475 0.48
 476 -0.18
 477 0.48
 478 0.80
 479 1.27
 480 1.77
 481 1.30

R=====

D=====

A=====

V=====

N=====

E=====

C=

D=

====I

==T

E=====

=Y

C=====

T=====

G=====

D=====

=S

=G

====Q

====C

P==

P==

N=====

L=====

H=====

K=====

=Q

=D

====G

====Y

=A

C

N=====

Q=====

N

Q

G

R=====

=C

Y=====

N=====

G=====

E=====

C=====

FIG. 1K

| | | |
|-----|-------|--------|
| 482 | 1.50 | K===== |
| 483 | 0.83 | T===== |
| 484 | 0.93 | R===== |
| 485 | 0.05 | D= |
| 486 | -0.75 | =====N |
| 487 | -1.35 | =====Q |
| 488 | -1.38 | =====C |
| 489 | -1.28 | =====Q |
| 490 | -0.82 | =====Y |
| 491 | -0.52 | =====I |
| 492 | -0.30 | =====W |
| 493 | 0.27 | G===== |
| 494 | 0.32 | T===== |
| 495 | 0.88 | K===== |
| 496 | 0.88 | A===== |
| 497 | 0.55 | A===== |
| 498 | 0.47 | G===== |
| 499 | 0.08 | S= |
| 500 | 0.53 | D===== |
| 501 | 0.53 | K===== |
| 502 | -0.27 | =====F |
| 503 | 0.18 | C===== |
| 504 | 0.28 | Y===== |
| 505 | 1.17 | E===== |
| 506 | 0.67 | K===== |
| 507 | 0.10 | L= |
| 508 | 0.90 | N===== |
| 509 | 1.37 | T===== |
| 510 | 1.43 | E===== |
| 511 | 0.97 | G===== |
| 512 | 0.80 | T===== |
| 513 | 0.87 | E===== |
| 514 | 0.87 | K===== |
| 515 | 0.87 | G===== |
| 516 | 0.87 | N===== |
| 517 | 1.33 | C===== |
| 518 | 2.00 | G===== |
| 519 | 1.43 | K===== |
| 520 | 0.63 | D===== |
| 521 | 0.17 | G===== |
| 522 | 0.00 | D |
| 523 | -0.45 | =====R |
| 524 | -0.45 | =====W |
| 525 | 0.43 | I===== |

FIG. 1L

| | | |
|-----|-------|--------|
| 526 | 1.23 | Q===== |
| 527 | 0.95 | C===== |
| 528 | 0.70 | S===== |
| 529 | 0.48 | K===== |
| 530 | -0.58 | =====h |
| 531 | -1.32 | =====D |
| 532 | -2.12 | =====V |
| 533 | -2.17 | =====F |
| 534 | -1.92 | =====C |
| 535 | -1.82 | =====g |
| 536 | -1.22 | =====F |
| 537 | -1.10 | =====L |
| 538 | -0.87 | =====L |
| 539 | -0.07 | =C |
| 540 | 0.02 | T |
| 541 | 0.08 | N= |
| 542 | 0.55 | L===== |
| 543 | 0.55 | T===== |
| 544 | 0.62 | R===== |
| 545 | 0.15 | A== |
| 546 | -0.07 | =P |
| 547 | -0.03 | R |
| 548 | -0.53 | =====I |
| 549 | 0.27 | G=== |
| 550 | -0.03 | Q |
| 551 | -0.37 | =====L |
| 552 | -0.07 | =Q |
| 553 | -0.17 | =G |
| 554 | -0.12 | =E |
| 555 | -1.03 | =====I |
| 556 | -1.12 | =====I |
| 557 | -0.90 | =====P |
| 558 | -0.87 | =====T |
| 559 | -0.80 | =====S |
| 560 | -0.35 | =====F |
| 561 | -0.18 | =Y |
| 562 | -0.10 | =H |
| 563 | 0.48 | Q===== |
| 564 | 0.28 | G===== |
| 565 | 0.33 | R===== |
| 566 | -0.17 | =V |
| 567 | 0.00 | I |
| 568 | 0.22 | D== |
| 569 | -0.53 | =====C |

FIG. 1M

| | | |
|-----|-------|--------|
| 570 | -0.62 | =====S |
| 571 | -0.97 | =====G |
| 572 | -0.47 | =====A |
| 573 | 0.12 | H= |
| 574 | 0.70 | V===== |
| 575 | 0.88 | V===== |
| 576 | 1.63 | L===== |
| 577 | 1.68 | D===== |
| 578 | 1.18 | D===== |
| 579 | 0.30 | D== |
| 580 | -0.45 | =====T |
| 581 | 0.12 | D= |
| 582 | 0.12 | V= |
| 583 | 0.37 | G===== |
| 584 | 0.30 | Y===== |
| 585 | 0.68 | V===== |
| 586 | 0.77 | E===== |
| 587 | 0.27 | D== |
| 588 | -0.23 | ==G |
| 589 | -0.18 | ==T |
| 590 | -0.33 | ==P |
| 591 | -0.55 | =====C |
| 592 | -0.55 | =====G |
| 593 | -0.85 | =====P |
| 594 | -0.35 | =====S |
| 595 | 0.10 | M= |
| 596 | 0.82 | M===== |
| 597 | 0.87 | C===== |
| 598 | 0.73 | L===== |
| 599 | 1.07 | D===== |
| 600 | 0.27 | R== |
| 601 | -0.20 | ==K |
| 602 | -0.78 | =====C |
| 603 | -0.92 | =====L |
| 604 | -0.58 | =====Q |
| 605 | -0.83 | =====I |
| 606 | -0.48 | =====Q |
| 607 | -0.47 | =====A |
| 608 | -0.55 | =====L |
| 609 | -0.25 | ==N |
| 610 | -0.58 | =====M |
| 611 | 0.13 | S= |
| 612 | 0.13 | S= |
| 613 | 0.58 | C===== |

FIG. 1N